

SARB Office Upgrade

Pretoria, South Africa

Localized restricted lateral support for a lift shaft in an existing 5-storey building with historical value.



The project

Installation of 2,900m² of a temporary soil nails / rock bolts / SDA R38 and R51 anchors with a permanent gunite wall. Percussion drilled micropiles 165mm diameter and R51N SDA micropiles provided for the founding support for the new lift shaft. Anticipated programme duration of 7 months. Excavation depth to 16 meters below ground level.

The challenge

Extremely challenging and varying ground conditions with a very high water table. Programme duration allowed no errors from the lateral support contractor – critical path. Supporting an historic 5-storey building to prevent damages to the structure – the building façade is in line with the final position of the lateral support face.

The solution

Soil nails and rock bolts, anchors below footings of existing building, permanent gunite walls 150mm thick, micropiles for lift shaft underpinning.

Project facts

Owner(s)

South African Reserve Bank

Keller business unit(s)

Keller Geotechnics SA (Pty) Ltd. Johannesburg

Main contractor(s)

Zero Azania

Solutions

Excavation support

Markets

Commercial

Techniques

Soil nails

Anchors

Shotcrete / Gunite

Micropiles

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